In the Abstract:

Please replace the Abstract with the following rewritten Abstract:

Disclosed is an apparatus for detecting photons of a light beam (1) emanating from a spatially limited source (2), especially in a fluorescence microscope. Said apparatus comprises a detection device and is characterized in that said detection device encompasses at least two detectors (7) while a component (3) is provided in the path of the light beam (1), by means of which the light beam (1) can be split such that the photons are distributed across the detectors (7) for detection purposes in order to increase the maximum counting rate that can be processed by the detection device.

An apparatus for detecting photons of a light beam emanating from a spatially limited source includes a detection device having a plurality of detectors forming a three-dimensional array with semitranslucent EMCCDs disposed one behind another. A light splitting device is disposed in a path of rays of the light beam for splitting the light beam so as to distribute the photons over the detectors for detection.